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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/644,411	08/20/2003	Jean-Francois Riou	STO1004 US CIP	7926
5487 7590 03/12/2007 ROSS J. OEHLER SANOFI-AVENTIS U.S. LLC 1041 ROUTE 202-206 MAIL CODE: D303A BRIDGEWATER, NJ 08807			EXAMINER PERREIRA, MELISSA JEAN	
			ART UNIT	PAPER NUMBER
			1618	
SHORTENED STATUTORY PERIOD OF RESPONSE		NOTIFICATION DATE	DELIVERY MODE	
3 MONTHS		03/12/2007	ELECTRONIC	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 03/12/2007.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/644,411	Applicant(s) RIOU ET AL.	
	Examiner Melissa Perreira	Art Unit 1618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) 1-4 and 7 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>1/18/07</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claims 1-4 and 7 are pending in the application. Claims 5,6 and 8-12 were cancelled in the response filed 1/18/07. Any rejections from previous office actions that have not been reiterate in this office action are obviated.

Response to Arguments

1. Applicant's arguments filed 1/18/07 have been fully considered but they are not persuasive.

Claim Rejections - 35 USC § 103

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang et al. (US 6,133,305) in view of Tang et al. (US 5,792,783) as stated in the office action mailed 7/26/07.
3. Applicant asserts that the disclosures of Tang et al. (US 6,133,305) and Tang et al. (US 5,792,783) are massive and that none of the compounds of the present application are specifically disclosed. Also, applicant asserts that Tang et al. (US 6,133,305) does not disclose acetylamino or heteroaryl at the 5-position of the indolinone ring or that Tang et al. (US 5,792,783) only specifically discloses chloro, nitro or methoxy at the 5-position and not an imidazolymethylene moiety. Applicant does acknowledge that the indolinones of Tang et al. (US 6,133,305) may be substituted at the 3-position by a pyrrol-2-ylmethylidenyl or imidazol-4-ylmethylidenyl.

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4. Applicant is incorrect in the assertion that Tang et al. (US 5,792,783) does not provide for an imidazolymethylene moiety at the 3-position. It is stated that "A is a five membered heteroaryl ring selected from the group consisting of thiophene, **pyrrole**, pyrazole, **imidazole**, etc.." (column 5, lines 5 and 21-23). The compounds of Tang et al. (US 5,792,783) also states that an acetylamino group may be substituted at any one of the positions around the phenyl ring, which does not exclude the 5-position. These embodiments encompass those of the instant claims. The compounds of Tang et al. (US 6,133,305) contain a pyrrol-2-ylmethylidenyl or imidazol-4-ylmethylidenyl substituted at the 3-position but do not contain the substituents of the instant claims at the 5-position. The compounds of both disclosures are modulators of kinase activity and contain the indolinone core. It would therefore be obvious to substitute the compounds of Tang et al. (US 6,133,305) at the 5-position with the 5-position substituents of Tang et al. (US 5,792,783) to examine and alter the effects on the modulation of the kinase activity, such as the regulation or inhibition of abnormal cell proliferation. It is obvious to those skilled in the art to make known substitutions on compounds that are similar in structure and function to observe the effects on the function of such compounds and to use the observations/data to further manipulate a compound to generate the desired effect.

New Grounds of Rejection
Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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2. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is unclear as to what is the recitation of $[-NO_2]$ is meant to represent. The use of brackets is generally understood to mean that the information provided within the brackets has been newly added but the recitation of R5 consisting of $-NO_2$, was already present in the claims prior to the amendment filed 1/18/07. This rejection was necessitated by the amendment to the instant claims.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

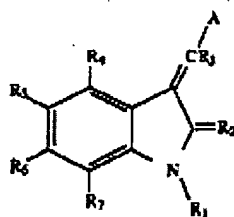
(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang et al. (US 5,792,783).

5. Tang et al. (US 5,792,783) discloses a compound having a cis or trans configuration, that is a modulator of tyrosine kinase signal transduction in order to regulate or inhibit abnormal cell proliferation (abstract; column 12, lines 47-60). R_1 is hydrogen, R_3 is hydrogen, R_2 is oxygen, A is pyrrole or imidazole, and R_4 , R_5 , R_6 and R_7 are independently hydrogen or R_5 is aryl, such as heterocyclic aryl (not excluding pyridyl) or acetylamino $NHC(O)R$ where R is an alkyl group, typically methyl (column 5, lines 5 and 21-23; column 7, line 10). The inclusion of a pyrrole or imidazole provides

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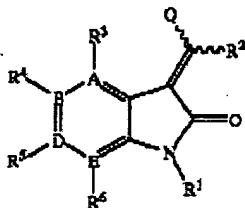
for pyrrol-2-ylmethylidenyl or imidazol-4-ylmethylidenyl substituents at the 3-position that encompass those of the instant claims. A pharmaceutically acceptable composition may be prepared in a suitable carrier or with suitable excipients for administration to a human patient (column 15, lines 15-21).



6. At the time of the invention it would have been obvious to one ordinarily skilled in the art to substitute R₅ with the acetamino group, NHC(O)R as is disclosed. The use of either pyrrole or imidazole substituted at the A position in combination with the R₅ acetamino group provides the compounds of the instant claims. It would

7. Claims 1-4 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tang et al. (US 6,316,429).

8. Tang et al. (US 6,316,429) discloses a 2-oxindole below: that is a protein kinase modulator for the treatment of cancer (abstract). Groups A, B, D and E can be carbon, R² is hydrogen, R⁴, R³, R⁵ and R⁶ can independently be hydrogen or heteroaryl, such as pyridine and Q is a heteroaryl group, such as imidazole (column 5; column 6, line 60; column 8, line 39). The composition of the compound may include any pharmaceutically acceptable carrier and be administered in a therapeutically effective amount to a human (column 3, lines 61-67; column 14).



9. At the time of the invention it would have been obvious to one ordinarily skilled in the art to substitute R^4 with pyridine as is disclosed. The use of imidazole substituted at the Q position in combination with the R^4 pyridine provides the compounds of the instant claims.

Conclusion

No claims are allowed at this time.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Melissa Perreira whose telephone number is 571-272-1354. The examiner can normally be reached on 9am-5pm M-F.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Hartley can be reached on 571-272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

MP

March 5, 2007


MICHAEL G. HARTLEY
SUPERVISORY PATENT EXAMINER